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GALKA, LAWRENCE STEFAN				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

10/542,073

**Applicant(s)**

SHIGETA, YASUSHI

**Examiner**

LAWRENCE GALKA

**Art Unit**

3717

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 February 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 36-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 36-49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 January 2010 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-940)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### **Response to Amendment**

1. Applicant's submission of a response on 2/18/11 has been received and considered. In the response, Applicant amended claim 36. Therefore, claims 36-49 are pending.

### **Double Patenting**

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 36-45 and 49 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 4, 11 and 14 of copending Application No. 11/929749. Although the conflicting claims are not identical, they are not patentably distinct from each other because both applications claim a card reading system with two sensors that reads two rows of codes printed in UV-luminous ink off of playing cards. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

#### **Claim Rejections - 35 USC § 112**

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 36-49 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claim 36 recites a limitation of “at least one card reader” but does not detail any structure for the card reader only that it is capable reading two rows of code elements arranged along one side of the card in the card drawing direction. It is unclear how one card reader can solve the problem of reading two rows of code elements arranged along one side of the card in the card drawing direction. In addition, it is unclear what the relationship between the card housing, the at least one card detecting sensor and the at least one card reader. Are the sensor and the reader

in, on or adjacent to the housing? Next, it is unclear how rows of code elements are detected. Is the card moved in some fashion to allow a fixed sensor to detect a row or is something moved over the rows to allow them to be scanned? In addition, what is the mechanism by which code in uv-luminous ink is read? Is there some kind of UV light source which would cause the ink to be luminous? What is the relationship of such a light source to the card housing, sensor, and card reader? Finally, is there some sort of processing element that translates the raw data from the sensor and readers? What is the relationship of such a processing element to the housing, sensor and readers? Is it in or on the housing? In a remote computer? If in a remote computer, how is sensor data communicated to the processing element? The above questions are suggestions as to the direction that can be taken for additional limitations to further limit the claim to remove indefiniteness.

7. Claims 37-49 are rejected for incorporating the above errors from their respective parent claims by dependency.

#### **Claim Rejections - 35 USC § 103**

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. It is noted that “at least one card reader” is claimed in terms of the details of a card which is not positively claimed. MPEP 2114, 2<sup>nd</sup> paragraph states: “A claim containing a “recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus” if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987). The following rejections were made assuming a card and it's features will be positively claimed as part of the system claim to further prosecution.

11. Claims 36-37, 39-44 and 46-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cuff et al. (pat. no. 4,534,562) in view of Daley (pat. no. 6,042,150).

12. Regarding claim 36, Cuff discloses a card reading system, comprising: a card housing for containing playing cards (Fig. 2, 12); at least one card detecting sensor for detecting the presence of a card being drawn from the card housing (card presence detector, Fig. 3, 38 and col. 5, lines 25-35); and at least one card reader for reading card information from a code printed on a surface of the card (photocells; Fig. 3, 34&36 and col. 5, lines 22-25), wherein the card reader reads the code by detecting at least two rows of code elements arranged along one side on the surface of a card in a card drawing direction, wherein each of the rows of code elements are stacked inwardly from an edge of the card toward a center of the card and spaced apart from each other (there are two rows of code elements on the face of the card; since they are parallel to each other, both rows are interpreted to be “along one side” since they are also both parallel to one side; each row is stacked inwardly from an edge of the card toward a center of the card and the rows are spaced apart from each other; see Fig. 3 and col. 4, lines 26-35) and wherein the same code is provided along opposed sides of the surface of the card in the card

drawing direction (the code is interpreted to be that expressed in the tables at col. 3, lines 50-60; this code is printed on both sides of the card, on one side zeros are indicated by the presence of a mark and on the other side ones are indicated by the presence of a mark, but both sides are displaying the same underlying number; see col. 4, lines 25-35 and col. 7, line 15 to col. 8, line 7). It is noted that Cuff does not disclose that the codes are printed in UV-luminous ink. Daley, however, teaches of a playing card security system where the code is viewable under UV light (col. 3, lines 61-63). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the Cuff invention to incorporate the UV visible code as taught by Daley. Adding a UV visible code of Daley would make the codes invisible to the players thereby making any security system less intrusive.

13. Regarding claim 37, Cuff discloses the card reader reads a code that corresponds to at least one of a rank and a suit of the card (col. 3, lines 37-45).

14. Regarding claim 39, Cuff discloses the card reader comprises at least two sensors for reading the code on the card (photocells; Fig. 3, 34&36 and col. 7, lines 16-55).

15. Regarding claim 40, Cuff discloses a first sensor reads a first row of code elements of the code and a second sensor reads a second row of code elements of the code (photocells; Fig. 3, 34&36 and col. 7, lines 16-55).

16. Regarding claim 41, Cuff discloses a card guide for guiding a card through a path where the card reader reads information from the card (Fig. 2, 30 and col. 4, line 66 to col. 5, line 2).

17. Regarding claim 42, Cuff discloses the card guide and the card reader are arranged such that the code on the card passes through the card reader when the card is slid with a side of the card being in contact with the card guide (col. 7, lines 9-15).

18. Regarding claim 43, Cuff discloses a processor for determining the identity of the card based on the card information (col. 6, lines 6-9); and a computer-readable storage medium for storing card information that is read by the card reader (col. 6, lines 10-14).

19. Regarding claim 44, Cuff discloses the processor controls the card reader to read the code when the at least one card detecting sensor detects the presence of a card (col. 7, lines 9-15).

20. Regarding claim 46, Cuff discloses the processor determines whether a card has passed through the card reader in a proper attitude based on signals from the at least one card detecting sensor indicating the presence or non-existence of a card (processor determines card direction after triggered by presence detector to start reading; see col. 7, lines 9-55; additionally a misread can be determined from error codes; see col. 3, line 64 to col. 4, line 25 and col. 8, lines 20-25).

21. Regarding claim 47, Cuff discloses the processor outputs a result of whether the card passed through the card reader in a proper attitude (processor outputs whether card is moving in A or B direction. See col. 7, lines 30-38 and Fig. 11f & 11g; additionally processor alerts on a misread; see col. 8, lines 20-25).

22. Regarding claim 48, Cuff discloses the processor outputs a result of the card information that is read by the card reader (processor constructs binary word encoding suit and rank information; see col. 7, lines 51-55).

23. Claims 36, 38, 43, 45 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCrea, Jr. (pat. no. 6,093,103) in view of Daley (pat. no. 6,042,150) and Cuff et al. (pat. no. 4,534,562).



24. Regarding claim 36, McCrea, Jr. discloses a card reading system, comprising: a card housing for containing playing cards; at least one card detecting sensor for detecting the presence of a card being drawn from the card housing (fig. 4, 400); and at least one card reader for reading card information from a code printed on a surface of the card (shoe with card reader; see Fig. 12 and col. 6, lines 43-46). It is noted that McCrea, Jr. does not disclose that the codes are printed in UV-luminous ink or two rows of code elements along one side and where the same code is provided along opposed sides of the card. Daley, however, teaches of a playing card security system where the code is viewable under UV light (col. 3, lines 61-63). Furthermore, Cuff teaches reading two rows of code elements along one side (there are two rows of code elements on the face of the card; since they are parallel to each other, both rows are interpreted to be "along one side" since they are also both parallel to one side; each row is stacked inwardly from an edge of the card toward a center of the card and the rows are spaced apart from each other; see Fig. 3 and col. 4, lines 26-35) and where the same code is provided along opposed sides of the card (the code is interpreted to be that expressed in the tables at col. 3, lines 50-60; this code is printed on both sides of the card, on one side zeros are indicated by the presence of a mark and on the other side ones are indicated by the presence of a mark, but both sides are displaying the same underlying number; see col. 4, lines 25-35 and col. 7, line 15 to col. 8, line 7). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the McCrea, Jr. invention to use the dealing shoe of Cuff and the UV visible code as taught by Daley. The Cuff shoe would allow the use of cheap light sensors in place of a camera and adding a UV visible code of Daley would make the codes invisible to the players thereby making any security system less intrusive.

25. Regarding claim 38, McCrea, Jr. discloses the card reader reads a code that corresponds to a group to which the card belongs (common identity code; see col. 2, lines 65-67).
26. Regarding claim 43, McCrea, Jr. discloses a processor for determining the identity of the card based on the card information; and a computer-readable storage medium for storing card information that is read by the card reader (gaming control; see col. 6, lines 55-58).
27. Regarding claim 45, McCrea, Jr. discloses the at least one card detecting sensor includes first and second card detecting sensors spaced apart in the card drawing direction (Fig. 4, 400 and col. 7, lines 42-53).
28. Regarding claim 49, McCrea, Jr. discloses the processor outputs a result indicating whether fraud has been committed (alarm signal; see col. 7, lines 17-20).

#### **Response to Arguments**

29. Applicant's arguments filed on February 18, 2011 have been fully considered but they are not entirely persuasive.
30. The provision double patenting rejections to claims 36-45 and 49 are maintained because there are other outstanding rejections to these claims.
31. The previous rejection to claims 39 and 40 based on 35 U.S.C. §112 have been withdrawn based on the current amendments to those claims. However, a new rejection based on 35 U.S.C. §112 has been made against claims 36-49 as detailed above.
32. On pages 6-8, Applicant argues that amended claim 36 is patentable because Cuff does not show two rows of code elements arranged along each side of the card or the same code provided on both sides of the card. Examiner respectfully disagrees. First, Applicant does not claim two rows of code elements arranged along each side of the card. Instead, Applicant claims

two rows of code elements arranged along one side. Regardless, the Cuff reference has been reinterpreted by the Examiner to meet this claim language since the two rows of code elements shown in Cuff are along one side because the two rows of code elements are parallel to one side and as result “along” that side. Next, Cuff does show the same code is provided upon opposite sides. The code is interpreted to be that expressed in the tables at col. 3, lines 50-60. This code is printed on both sides of the card, on one side zeros are indicated by the presence of a mark and on the other side ones are indicated by the presence of a mark, but both sides are displaying the same underlying number(see col. 4, lines 25-35 and col. 7, line 15 to col. 8, line 7). Applicant argues that Cuff does not teach that the same underlying code is encoded on both sides of card. Examiner respectfully disagrees. Cuff teaches “For coding, the cards are arranged from ace of spades to king of clubs and are assigned a binary word to encode the face value and suit of the card” (col. 3, lines 38-41). This word is what is encoded on either sides of the card to facilitate reading of the card regardless of the orientation of the card in the card reader the same as the codes in the Applicant’s invention.

### **Conclusion**

33. The prior art made of record and not relied upon is considered pertinent to applicant’s disclosure. Shigeta (EP 1316341) shows a card reader that reads a card with the same code elements placed along opposite sides of the card (Fig. 4). The Applicant is directed to the attached “Notice of References Cited” for additional relevant prior art. The Examiner respectfully requests the Applicant to fully review each reference as potentially teaching all or part of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAWRENCE GALKA whose telephone number is (571) 270-1386. The examiner can normally be reached on M-Th 7:30-5, every other F 7:30-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Melba Bumgarner can be reached on (571) 272 4709. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Melba Bumgarner/  
Supervisory Patent Examiner, Art Unit 3717

LSG 4/18/11